AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1.   (Currently Amended) An encoder comprising:

filtering generation means for generating a filtering coefficient by performing a filtering process on inputted picture data;

division means for dividing the filtering coefficient into plural bit planes from an uppermost bit to a lowermost bit of each pixel;

read control means for removing a predetermined number of bit planes among the bit planes, from a lower side, ~~thereafter reads~~ for reading remaining bit planes, and ~~outputs~~ for outputting the remaining bit planes in parallel; and

a plurality of encoding means for encoding the bit planes outputted in parallel from the read control means, wherein

the read control means determines the predetermined number of the removed bit planes, so that a quantity of generated codes per frame is kept constant when each of the encoding means performs the encoding.

2.   (Currently Amended) The encoder according to claim 1, wherein

the read control means removes the <u>predetermined number</u> ~~first quantity~~ of bit planes, from the lower side and from a lower hierarchical level, from bit planes stored in storage means.

3.   (Currently Amended) The encoder according to claim 1, further comprising

rate control means for feeding forward in order that the ~~second~~ quantity of generated codes per frame is kept constant, based on results of the encoding process of the plural encoding means.

4.   (Previously Presented) An encoding method comprising:

generating a filtering coefficient by performing a filtering process on inputted picture data;

dividing the filtering coefficient into plural bit planes from an uppermost bit to a lowermost bit of each pixel;

removing a predetermined number of bit planes among the plural bit planes, from a lower side, thereafter reading the remaining bit planes, and outputting the remaining bit planes in parallel; and

encoding the bit planes outputted in parallel, wherein

the predetermined number of the removed bit planes is determined in the removing step so that a quantity of generated codes per frame is kept constant when encoding the bit planes.

5.   (Previously Presented) The encoding method according to claim 4, wherein,

removing the predetermined number of bit planes comprises removing the

predetermined number of bit planes from the lower side and from a lower hierarchical

level.

6.   (Previously Presented) The encoding method according to claim 4, further

comprising

setting the predetermined number of bit planes removed in the removing step,

which is necessary to keep the quantity of generated codes per frame constant, based

on results of the performed encoding processing, and thereafter feeding back the

predetermined number to the removing step.

7.   (Currently Amended) An encoder, comprising:

a video input section for receiving picture data and separating the picture data

into data components;

a wavelet converter for receiving the data components from the video input

section and dividing the data components into frequency components;

a quantizer for quantizing the frequency components received from the wavelet

converter;

a bit plane converter for receiving the quantized frequency components supplied from the quantizer and dividing the quantized frequency components into code blocks, the bit plane converter further dividing the code blocks into a plurality of bit planes;

a rate controller for performing a rate control so that only necessary bit planes are sent to a register;

a plurality of bit model sections, each bit model section receiving a corresponding one of the necessary bit planes from the register and creating a context based on the received necessary bit plane;

a plurality of arithmetic encoders, each arithmetic encoder performing an entropy encoding and calculating generation probabilities for the context to create encoded streams; and

a format generator for rearranging the encoded streams and adding additional information to the encoded streams to create data streams, the format generator outputting the data streams; wherein

the rate controller performs the rate control by determining a predetermined number of bit planes to be removed, so that a quantity of generated codes per frame is kept constant when each of the arithmetic encoders performs the entropy encoding.

8.   (Previously Presented) The encoder of claim 7, wherein the rate controller removes a predetermined quantity of bit planes among the bit planes to obtain the necessary bit planes.

9.   (Previously Presented) The encoder of claim 8, wherein the predetermined

quantity of bit planes is determined such that the arithmetic encoders encode

substantially the same amount of generated codes.